

OIB - HU-25C Guardian #524 08/29/16 Science Report

Aircraft:

[HU-25A Guardian #524](#) ([See full schedule](#))

Date:

Monday, August 29, 2016

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Falcon Helheim-Kangerd (priority: high)

This mission is based on the Helheim-Kangerdlugssuaq mission last flown in Spring 2016. It has been shortened by removing all of the glacier centerlines from the area east of Sermilik fjord (including Midgard, Fenris, Glacier de France, and several others) and also the centerlines of two additional glaciers just south of Kangerdlugssuaq Glacier.

After the foggiest day in collective memory yesterday on the ground in Kangerlussuaq, today's local conditions were much better with high ceilings and no fog. Most of southern Greenland was under the influence of high pressure and was clear, although weather models showed clouds moving in to the Kangerdlugssuaq Glacier region later in the day. We indeed observed clear skies over and around Helheim Glacier, but the clouds north of Kangerdlugssuaq Glacier moved in earlier than we expected. We responded by descending from 28,000' to 21,000', which placed us beneath most of the clouds, and we believe that we successfully captured data on the lower portion of the glacier. We missed some of the region to the north of the Kangerdlugssuaq basin due to the clouds.

All instruments performed well. The ATM T5 user interface "GUI" computer crashed during our approach to Kangerdlugssuaq Glacier, but the data collection computer continued operating normally. The temporary unavailability of the GUI computer made it difficult for us to assess the quality of the ATM T5 data for the initial run down the glacier, but the GUI machine came back up for the second run back up the glacier, and the ATM data looked reasonably good for that run. This led us to believe that both runs should produce usable data.

Data volumes:

CAMBOT: 12 Gb images

Narrow Swath ATM: 45 Gb

FLIR: 7.2 Gb

Images:

Map of Falcon Helheim-Kangerdlugssuaq



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Helheim Glacier



[Read more](#)

Fenris Glacier



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Midgard Glacier



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Kangerdlugssuaq Glacier



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Submitted by:

John Sonntag on 08/29/16

Related Flight Report:

HU-25A Guardian #524 08/29/16

Flight Number:

OIB 2016 on HU-25 #18

Payload Configuration:

ATM

Nav Data Collected:

No

Total Flight Time:

3.8 hours

Submitted by:

Richard Yasky on 08/29/16

Flight Segments:

From:	BGSF	To:	BGSF
Start:	08/29/16 10:12 Z	Finish:	08/29/16 14:00 Z
Flight Time:	3.8 hours		
Log Number:	16F003	PI:	Nathan Kurtz
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	Helheim Kangerdlugssuaq mission conducted in mostly visual conditions with the exception of the far NE portion where we had to descend to FL210 to get below most of the clouds. Estimate approximately 85-90% ground data coverage during mission.		

Flight Hour Summary:

	16F003
Flight Hours Approved in SOFRS	121.25
Total Used	126.9

Total Remaining**-5.65****16F003 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
06/29/16	OIB 2016 on HU25A ICF	Science	2	2	119.25
07/11/16	OIB 2016 on HU25A #1	Ferry	2.6	4.6	116.65
07/11/16	OIB 2016 on HU25A #2	Ferry	2.5	7.1	114.15
07/11/16 - 07/12/16	OIB 2016 on HU25A #3	Ferry	2.2	9.3	111.95
07/12/16 - 07/13/16	OIB 2016 on HU25A #4	Ferry	2.6	11.9	109.35
07/13/16	OIB 2016 on HU25A #5	Science	3.4	15.3	105.95
07/14/16	OIB 2016 on HU25A #6	Science	3.5	18.8	102.45
07/15/16	OIB 2016 on HU25A #7	Science	3.7	22.5	98.75
07/19/16 - 07/20/16	OIB 2016 on HU25A #8	Science	3.6	26.1	95.15
07/20/16	OIB 2016 on HU25A #9	Science	3.4	29.5	91.75
07/21/16	OIB 2016 on HU25A #10	Science	3.6	33.1	88.15
07/22/16	OIB 2016 on HU25A #11	Ferry	3.9	37	84.25
07/22/16	OIB 2016 on HU25A #12	Ferry	3.2	40.2	81.05
07/22/16	OIB 2016 on HU25A #13	Ferry	2.1	42.3	78.95
08/23/16	OIB 2016 on HU-25 #14	Science	2.3	44.6	76.65
08/25/16	OIB 2016 on HU-25 #15	Ferry	3.2	47.8	73.45
08/25/16	OIB 2016 on HU-25 #16	Ferry	2.2	50	71.25
08/27/16	OIB 2016 on HU-25 #17	Science	3.7	53.7	67.55
08/29/16	OIB 2016 on HU-25 #18	Science	3.8	57.5	63.75
08/29/16	OIB 2016 on HU-25 #19	Science	3.5	61	60.25
09/01/16	OIB 2016 on HU-25 #20	Science	3.4	64.4	56.85
09/02/16	OIB 2016 on HU-25 #21	Science	3.8	68.2	53.05
09/02/16	OIB 2016 on HU-25 #22	Science	3.8	72	49.25
09/05/16	OIB 2016 on HU-25 #23	Science	0.6	72.6	48.65
09/06/16	OIB 2016 on HU-25 #24	Science	3.5	76.1	45.15
09/09/16	OIB 2016 on HU-25 #25	Science	3.5	79.6	41.65

09/09/16	OIB 2016 on HU-25 #26	Science	3.5	83.1	38.15
09/10/16	OIB 2016 on HU-25 #27	Science	3	86.1	35.15
09/11/16	OIB 2016 on HU-25 #28	Science	3.9	90	31.25
09/11/16	OIB 2016 on HU-25 #29	Science	3.7	93.7	27.55
09/12/16	OIB 2016 on HU-25 #30	Science	3.3	97	24.25
09/12/16	OIB 2016 on HU-25 #31	Science	2.7	99.7	21.55
09/13/16	OIB 2016 on HU-25 #32	Science	4	103.7	17.55
09/13/16	OIB 2016 on HU-25 #33	Science	2.9	106.6	14.65
09/15/16	OIB 2016 on HU-25 #34	Science	3.7	110.3	10.95
09/16/16	OIB 2016 on HU-25 #35	Ferry	2.4	112.7	8.55
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	114.4	6.85
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	116.1	5.15
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.8	118.9	2.35
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.9	121.8	-0.55
09/19/16	OIB 2016 on HU-25 #40	Ferry	2.5	124.3	-3.05
09/19/16	OIB 2016 on HU-25 #40	Ferry	2.6	126.9	-5.65

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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